



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

$$\tan^{-1} \frac{1}{239} = .00418 \ 40760 \ 02074 \ 72386 \ 45382 \ 14959 \ 28545 \ 27410 \ 48065 \ 30763 \\ 19508 \ 27019 \ 61288 \ 71817 \ 78341 \ 42289 \ 32737 \ 82605 \ 81362 \ 29094 \\ 54975 \ 45066 \ 64448 \ 63756 \ 05245 \ 83947 \ 89311 \ 86505 \ 89221 \ 28833 \\ 09280 \ 08462 \ 71962 \ 33077 \ 33759 \ 47634 \ 60331 \ 84734 \ 14570 \ 33198 \\ 60154 \ 54814 \ 80599 \ 24498 \ 30211 \ 46039 \ 12539 \ 49527 \ 60779 \ 68815 \\ 58881 \ 27339 \ 78533 \ 46518 \ 04574 \ 25481 \ 35867 \ 46447 \ 51979 \ 10232 \\ 83097 \ 70020 \ 64652 \ 82763 \ 46532 \ 96910 \ 48183 \ 86543 \ 56078 \ 91959 \\ 14512 \ 32220 \ 94463 \ 68627 \ 66155 \ 20831 \ 67964 \ 26465 \ 74655 \ 11032 \\ 51034 \ 35262 \ 82445 \ 12693 \ 55670 \ 49968 \ 44452 \ 47904 \ 3$$

$$\pi = 3 \ 14159 \ 26535 \ 89793 \ 23846 \ 26433 \ 83279 \ 50288 \ 41971 \ 69399 \ 37510 \\ 58209 \ 74944 \ 59230 \ 78164 \ 06286 \ 20899 \ 86280 \ 34825 \ 34211 \ 70679 \\ 82148 \ 08651 \ 32823 \ 06647 \ 09384 \ 46095 \ 50582 \ 23172 \ 53594 \ 08128 \\ 48111 \ 74502 \ 84102 \ 70193 \ 85211 \ 05559 \ 64462 \ 29489 \ 54930 \ 38196 \\ 44288 \ 10975 \ 66593 \ 34461 \ 28475 \ 64823 \ 37867 \ 83165 \ 27120 \ 19091 \\ 45648 \ 56692 \ 34603 \ 48610 \ 45432 \ 66482 \ 13393 \ 60726 \ 02491 \ 41273 \\ 72458 \ 70066 \ 06315 \ 58817 \ 48815 \ 20920 \ 96282 \ 92540 \ 91715 \ 36436 \\ 78925 \ 90360 \ 01133 \ 05305 \ 48820 \ 46652 \ 13841 \ 46951 \ 94151 \ 16094 \\ 33057 \ 27036 \ 57595 \ 91953 \ 09218 \ 61173 \ 81932 \ 61179 \ 3$$

Commencing at the 441st decimal place, Mr. Shanks' additional figures are as follow :—

$$\left(\tan^{-1} \frac{1}{5}\right) \dots 78985 \ 02007 \ 52236 \ 96837 \ 96139 \ 22783 \ 54193 \ 25572 \ 23284 \ 13846 \\ 47744 \ 13529 \ 09705 \ 46512 \ 24383 \ 02697 \ 56051 \ 83775$$

$$\left(\tan^{-1} \frac{1}{239}\right) \dots 33177 \ 28393 \ 07086 \ 31401 \ 93869 \ 51950 \ 37058 \ 64107 \ 70855 \ 85540 \\ 45223 \ 55388 \ 14237 \ 67708 \ 36515 \ 69182 \ 52702 \ 00228$$

$$(\pi) \dots 31051 \ 18548 \ 07446 \ 23799 \ 62749 \ 56735 \ 18857 \ 52724 \ 89122 \ 79381 \\ 83011 \ 94912 \ 98336 \ 73362 \ 44065 \ 66430 \ 86021 \ 39488$$

In conclusion, the author states that Mr. Shanks has computed the value of the base of the Napierian system of logarithms as well as the values of the Napierian logarithms of 2, 3, 5 and 10, to the extent of 140 places of decimals.

2. "An Account of a Deep-sea Sounding in 7706 fathoms, in 36° 49' South Latitude, and 37° 6' West Longitude." By Captain Henry Mangles Denham, R.N., F.R.S. Communicated by Rear-Admiral Sir Francis Beaufort, K.C.B., F.R.S., Hydrographer. Received January 20, 1853.

This sounding was obtained on a calm day, October 20, 1852, in the course of the passage of H.M. ship *Herald*, from Rio de Janeiro to the Cape of Good Hope. The sounding-line was  $\frac{1}{10}$ th of an inch in diameter, laid into one length, and weighing, when dry, 11b. for every hundred fathoms. Captain Denham received from Commodore McKeever of the United States Navy, commanding the Congress Frigate, a present of 15,000 fathoms of this line, 10,000 fathoms on one reel, and 5000 on another; and considers it to have been admirably adapted for the purpose for which it was made and to which it was applied. The plummet weighed 9lbs., and was 11·5 inches in length, and 1·7 inch in diameter. When 7706 fathoms had run off the reel the sea-bottom was reached. Captain Denham states that Lieut. Hutcheson and himself, in separate boats, with

their own hands, drew the plummet up 50 fathoms several times, and after it had renewed its descent, it stopped, on each occasion, abruptly at the original mark to a fathom, and would not take another turn off the reel. The velocity with which the line run out was as follows :—

	h	m	s
The first 1000 fathoms in . . . .	0	27	15
1000 to 2000 fathoms in . . . .	0	39	40
2000 to 3000 fathoms in . . . .	0	48	10
3000 to 4000 fathoms in . . . .	1	13	39
4000 to 5000 fathoms in . . . .	1	27	06
5000 to 6000 fathoms in . . . .	1	45	25
6000 to 7000 fathoms in . . . .	1	49	15
7000 to 7706 fathoms in . . . .	1	14	15
	9	24	45

The whole time therefore taken by the plummet in descending through 7706 fathoms, or nearly 7·7 geographical miles of 60 to the degree, was 9<sup>h</sup> 24<sup>m</sup> 45<sup>s</sup>. The highest summits of the Himalaya, Dhaulagiri and Kinchinga, are little more than 28,000 feet, or 4·7 geographical miles above the sea. The sea-bottom has therefore depths greatly exceeding the elevation of the highest pinnacle above its surface.

The strength of the line tried before the sounding was found to be equal to bear 72lbs. in air. The 7706 fathoms which ran out weighed, when dry, 77lbs., exclusive of the plummet, 9lbs. Great care was taken in the endeavour to bring the plummet again to the surface to show the nature of the bottom, but, whilst carefully reeling in, the line broke at 140 fathoms below the water-line, carrying away a Six's thermometer which had been bent on at 3000 fathoms.

A paper was also in part read, entitled "On the Eclipses of Agathocles, Thales and Xerxes." By George B. Airy, Esq., F.R.S. &c., Astronomer Royal. Received December 15, 1852.

---

January 27, 1853.

The EARL OF ENNISKILLEN, V.P., in the Chair.

A letter was read giving an account of "An Explosive Meteorite." By Francis Higginson, Esq., R.N. Communicated by Thomas Bell, Esq., Sec. R.S. &c. Received December 23, 1852.

The writer states that his attention having been aroused by the highly electrical state of the atmosphere during a severe gale of wind, he proceeded along the beach in the vicinity of Dover, at 2 A.M. on the morning of Friday, the 17th of December 1852.

It had blown very hard during the night, the wind veering from West to W.S.W., in occasional heavy squalls of rain and sleet, accompanied at intervals by faint flashing scintillations, which at